



# Aquarium Notes and News

NOVEMBER, 1914



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HE Aquarium Society of Philadelphia meets on the fourth Wednesday of each month, except July and August, at 1414 Arch Street. Initiation fee, \$1.00; dues, \$1.80 per year.

Corresponding membership, \$1.00; no initiation.

"Notes and News" is sent to all members.

We have no subscription list and no paid advertisements, but members may use these columns, subject to editorial approval, to tell what they want to buy or sell.

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### November Meeting

The November meeting will be held on Wednesday evening, November 25, 1914, at 8,30 P. M.

### EXHIBITION

At the November meeting the diploma of the Society will be awarded the best fish bred and raised by a member; also blue ribbons to the best fish of each class bred and raised by members.

There will also be an award of the cups for

the household aquariums.

## AOUARIUM NOTES & NEWS

#### OCTOBER EXHIBITION

There has never been in the history of the Aquarium Society of Philadelphia such a keen competition as at our last meeting. Some idea of the high standard of fish exhibited may be gained when it is known that it took three ballots to decide the winners. On the first ballot twelve fish received votes; on the second ballot five fish were in competition, and on the third ballot the winner of the competition received thirteen votes and second place received twelve votes.

Mr. Franklin Barrett was the fortunate man to receive the diploma of the Aquarium Society of

Philadelphia. His winner was a lionhead.
Mr. Joseph E. Bausman won second place and receives the first bronze medal awarded by our Society, and, as far as we know, by any society, for the exhibition of fish. He exhibited a scaleless telescope veiltail.

Th judges appointed to pass upon the balance of the fish exhibited, giving an award to the best fish in each class, were Mr. Wm. T. Innes, Mr. Jos. End and Mr. Fred Schaefer.

The following awards were made:

Blue ribbons to

H. R. Lippincott, for a Scaled Japanese Veiltail. Geo. W. Price, for a Scaleless Japanese Veiltail. Franklin Barrett, for a Telescope Scaleless Ribbontail.

Joseph E. Bausman, for a Telescope Scaleless Veiltail.

Joseph Klippen, for a Scaled Telescope Black Veiltail

In the societies of other cities the proportion of ladies at the meetings is much larger. As our room is now free of tobacco smoke, we hope our members will make a point of bringing their lady relatives and friends. Several ladies are members and many more will be welcome.

### METHODS OF FEEDING GOLDFISH

At the October meeting of the Aquarium Society there was a discussion by the more experienced of our members, and especially those who have been prize winners, in regard to the proper feeding of goldfish.

The feeding seems to be quite varied, and we quote the following methods that are used by our members:

The feeding of very young fry by sprinkling rice flour on the surface of the water in sufficient quantities that it will be entirely consumed. This feeding is kept up until the fish are able to eat small live daphina. After this time they are fed on oatmeal.

Another method is to feed the fish chopped raw beef that has had both the tissue and fatty portions removed. In feeding this, care must be used that there is no beef left in the water. If left in the water it will sour the water and cause trouble. Many breeders believe that raw beef has a tendency to produce fin congestion, and that it should be used only in moderation.

It is also suggested that a good way to feed meat to fish is to take a piece of lean beef, about as big as a shellbark, and tie it to a string and suspend from a stick laid across the top of the aquarium, so the fish will not carry it around and will use a little effort to nibble off small pieces. In this way they will get pieces that are not large enough to choke them.

The old method or feeding daphnia is, of course, one of the best methods, but it is not always possible for the greater number of people to procure this item.

A good method of feeding very young fish is to feed them on infusoria. This infusoria can be produced in several ways. One is to scatter powdered dry duckweed on the surface of the water.

There is another method of mixing one-third powdered dry lettuce leaves, one-third powdered dry duckweed and one-third powdered sheep manure and cover with a fair amount of water. In this mixture infusoria grows quite rapidly and

very large and makes excellent feeding.

Another method is to make an infusion of hay by placing the hay in hot water. After the infusion is made, strain the product and you will then have a liquid about the color of tea. This liquid must be left standing in a dark, warm place for twenty-four to thirty-six hours, when it will darken materially and the infusoria will be ready to use.

A food for larger fish may be composed of dry oatmeal and crushed shrimp as the principal elements, to which can be added smaller portions of dried daphina, dried ant eggs that have been ground and chopped meal worms.

An exceptionally good food is made by making a porridge of two parts Bethlehem oatmeal and one part dried shrimp. A mixture of this kind is relished by fish. One of our members reports having used three parts Bethlehem oatmeal and one part shrimp. The porridge was fed three times a day in sufficient quantities that the fish would consume all that was given at one time. This was used as an experiment on fifty small goldfish not over a half inch in size, and within seven months the fish that were fed in this way grew to be very large, some of them attaining five inches in size. These fish were kept in an outside pond about six feet in diameter, and the fish having the greater amount of swimming space developed rather long bodies. There will be the same experiment in feeding made on small fish, in restricted swimming pools, to see if it will develop the fish as rapidly and yet not give the long body that was the result in the other pool.

A small portion of powdered yoke of a boiled egg mixed with water is very good as a food for young fish.

It is an undoubted fact that fish relish a change in their feeding the same as human beings do. We would no more care to be fed on bread and butter all the time than a fish would be to have to live on one food forever.

There should be no difficulty in procuring dried shrimp, as it will be found at practically all Chinese grocery stores, and in this city can be procured on Race Street between 9th and 10th Streets. where there are several stores that deal in goods of this kind, the Chinese being very fond of shrimp, they using it mostly in soup.

### PUBLIC AQUARIA

The United States at the present time can boast of only four public aquaria. The one at Battery Park, New York, is the largest. It has 94 glass fronted wall tanks, 7 floor pools, the largest of which is 37 feet in diameter and about 25 smaller tanks.

The total number of fishes and invertebrates in this aquarium January 1, 1914, was 6,700, representing 200 different species. The collection of fishes alone is generally about 4,000 specimens and 150 species. The collection includes both fresh and salt water species. The attendance for the

year 1913 was 2,205,729.

The Boston Aquarium is so arranged that the exhibition tanks can be used as 55 separate tanks, if desired, each 3½ feet wide, or by taking out the removable glass partitions, two or more tanks can be converted into one for the exhibition of large or specially active fishes. The present arrangement is 45 tanks, of which 20 are occupied by marine species and 25 by those of fresh water.

There are about 60 species and approximately 800 fish on exhibition and in reserve. (There are 30 reserve tanks.) The attendance during the first year, which ended November, 1913, was a

little over 1,100,000.

The Detroit Aquarium has 44 wall tanks ranging in size from 3 feet 6 inches to 8 feet 6 inches wide and 3 feet 6 inches deep, three floor pools, one large tank in the centre of the building, oval in shape, being 12 feet long and 8 feet wide by 3 feet 6 inches deep. In addition to this they have 14 smaller aquaria in the hall.

The aquarium carries about 70 species of salt and fresh water fish. The attendance is about

1,000,000 per year.

The Philadelphia Aquarium is only a temporary exhibit of 32 tanks from 4 feet to 6 feet long,

old fashioned in type and not adapted for the

best display.

The permanent aquarium, when completed, is designed to hold about 140 tanks and will be the

largest aquarium in the United States.

At present there is on exhibition about 30 species of fish, embracing just half of the number of families of fish in the waters of Pennsylvania. The attendance last year was 256,857. At the present time there is an average attendance on Sundays of over 2,000.

Philadelphia also enjoys a large outside basin about 150 feet long and 60 feet wide, devoted to seals, and its natural location makes it one of the best and most attractive seal tanks in existence.

Some idea of the interest in fish is shown by the comparative numbers of people in attendance.

The attendance at the New York Zoological Park during 1913 was 1,943,683, while the attendance at the New York Aquarium in the same

length of time was 2,205,729.

In Philadelphia the attendance at the Zoological Gardens for the year ending March 1, 1914, was 454,344, but of this number 250,000 represented children sent to the gardens by the Board of Education. The attendance for one year at the Philadelphia Aquarium was 256,857, with no visitors sent from the public schools.

In each city, New York and Philadelphia, it will be seen that there is a greater interest in the exhibition of fish than in the animals on exhibition in the Zoo, and we trust our city will push as rapidly as possible the completion of our "to be largest and best aquarium in the United

States."

We have had a number of compliments paid us on the article appearing in the September number of AQUARIUM NOTES AND NEWS on the Chaetodon. This is an incitive for more work along the same line, so shortly our members may look for two cups to be offered for original research in regard to several of our common and native fish. It is only by this original work that our society can be recognized as a scientific body.

Aerating pump, valued at \$15, can be bought cheap or obtained in exchange for goldfish. Confer with Secretary.

### "THE LOBSTER"

A short account of the development of the young of the common lobster from the eggs which the female carries for ten or eleven months in dense masses under her body will doubtless be of interest to those of us interested in the wonders of nature, The lobster egg is about one-fifteenth of an inch in diameter and the young when hatched are not more than one-third of an inch in length and are free swimming through most of their early life, spending a greater part of this life on or near the surface of the water. The little fellows pass rapidly through several successive stages before arriving at adult age.

Like all crustaceans, the lobster increases in size by moulting or casting off its old coat, which is usually thrown off in one piece. This moulting is necessary, as the shell once formed never grows, but a new shell, in a soft state, forms under the old. The youngsters pass through this moulting every few days; but when full grown the shedding takes place only once in every one or two years. The lobster prepares for the approaching moult by erecting a fortress of sand under some shelving rock to await the change of coat.

The greatest difficulty seems to be in drawing the large anterior claws through the comparatively small dimensions of the same limb where it joins the body. After the great limbs are free the rest is easier, and by a series of spasmodic jerks the whole body is drawn from the old covering, the complete change taking perhaps one-half hour. When everything is at last free the lobster lies as if dead and they occasionally do die from exhaustion, but in two or three days the newly attired lobster, a full fourth larger than before, goes out to meet its brothers on equal terms.



